THE Macdonald Farm Journal

VOLUME 14 No. 10

JUNE 1954

F A R M • S C H O O L • H O M E

It's test-work — not guess work — that keeps COCKSHUTT equipment "out front"!

In building Cockshutt equipment . . . nothing is left to chance. When we say Cockshutt farm equipment is "field-tested" — "farm proven" — *we mean what we say!* Pictured above is one of Cockshutt's Mobile Test Units being used to determine stresses and strains on a Cockshutt "11-A" One Way Disc Harrow *in action!* Inset shows interior view of this "rolling laboratory" which enables our engineers to give Cockshutt farm machines and implements a final check so exacting, so scientifically foolproof, that no flaw in design, engineering, construction or operation can possibly escape detection. Such thorough and careful testing ensures Cockshutt customers the finest farm equipment that money can buy.

WHEN YOU OWN A . . .

COCKSHUTT

YOU *KNOW* YOU OWN THE BEST!

PARTNERS OF THE CANADIAN FARMER FOR 115 YEARS

As we see it

Is Farm Income That Bad?

We recently got hold of a news release which gave figures on the farmers' share of the national income, and they didn't make good reading. The release gave the proportion of the national labor force which is engaged in agriculture as 13 percent; it seems that this 13 percent is getting less than 9 percent of the national income.

We got to wondering about this. Can we actually take these two figures of 9 and 13 percent and say, "It certainly looks as though the farmer is getting it in the neck again?" After doing some thinking we decided that these figures can't be taken alone; it's necessary to look behind them and see what other factors are at work.

Firstly, it would seem that the 13 percent of the labor force which is engaged in agriculture and which earns less than 9 percent of the national income must have a low productivity, what we mean is that it takes a lot of people to turn out all the wheat, cattle, hogs, milk and poultry, etc., that this country produces. On the average we don't, individually, produce very much. This would indicate that some people ought to move out of agriculture into better paying jobs which is just what they have been doing and still are doing so that we are nearer a balance today than we were ten years ago.

While this low average productivity goes a long way to explaining why farm people have a lower standard of living than urban families it isn't the whole story either; there are still other factors which must be considered.

Secondly, we can't lump all agriculture together and say that it suffers from low average productivity, for some farms, for instance, prairie grain farms or high capital eastern mixed farms are highly efficient, their labor requirements are low and their output high. These farms are a very different proposition from the subsistance farms of the Quebec or New Brunswick hinterland where the farmer's income and productivity from his farm are very low; indeed he may add to this by logging for a company during the winter months.

These efficient farms are highly mechanized, and their average productivity is high, as high as anything in other occupations, and figures tend to support this suggestion. Roughly speaking we can say that about 25 percent of our farms contribute less than 10 percent of the gross sales of all full time farms. In other words if these farms were to close up tomorrow we would lose only about 10 percent of the total commercial output of farm products.

At the other end of the scale we get the highly productive farms turning out most of our commercial production. These are some of the things we must think about whenever we read a bald statement to the effect that farm income is low compared to the number of people engaged in agriculture. It is low only for the people on the low capital low productivity farms, it is not low on the highly mechanized highly capitalized farms where it may well equal and in a great many cases surpass the income of urban families.

Any article in the *Journal* may be reprinted if the source and the author are credited.
The Macdonald Farm Journal is owned and edited by Macdonald College, and is published in Montreal, P.Q. All correspondence concerning material appearing in the Journal should be addressed to: The Editor, Macdonald College, Que.

Chairman of the Board, W. H. Brittain, PhD., *Editor*, A. B. Walsh, B.Sc. (Agr.), *Associate Editor*, H. R. C. Avison, M.A., *Farm Editor*, Colin Muirhead, M.S., *Business Manager*, J. H. Holton, B.Com.

For advertising rates and all correspondence concerning the advertising section write to the *Advertising Representative*, E. Gross, 202 Cote St. Antoine Road, Westmount; telephone GLenview 2815.

Subscription rate $1.00 for 3 years. Authorized as second class mail, Post Office Department, Ottawa.

This Farm Plans Its Production

by Colin Muirhead

"If you want to stay in farming these days you've got to plan for production and better use of labor," says the owner of Wendybrook Farm.

PIERRE VEILLON is a man with a burning ambition in life — to sell Jersey milk. We hadn't been sitting in this large and comfortable house for more than a few minutes when he picked up a casual remark of ours regarding Jersey milk being good but a couple of cents more than ordinary 3.7 percent milk and after all the hard put consumer has to watch his cents today. "Do you ever buy cream?" he shot back, "Yes," we admitted, feeling we were walking into a trap of some sort but not knowing quite where, "sometimes." "Well there you are," he said, "by buying Jersey milk you can have all the cream you want for coffee, desserts or whipping and still have a better looking bottle of milk left than ordinary 3.7 percent you get delivered to your door." To back up his argument he brought in a neatly capped quart bottle, "Look at this Jersey milk," he said, "cream in a third of the bottle, you'll never get that in anything but a bottle of Jersey milk." We admitted he was right on that score. "Now," he said, "we'll take some of the cream off this bottle," and he more than half filled a glass. "There," he said, "is enough cream to whip for a dessert or for coffee and look at that bottle, still more than you see on a normal bottle of milk."

"We Jersey's farmers," he went on, "have to push the sale of our milk ourselves if we want to increase our sales." and Pierre Veillon, who came to Canada from Switzerland, doesn't just talk about things close to his heart — he goes out and does something. For instance, he demonstrated and talked about Jersey milk at the Show Mart in Montreal, and before that he had taken some bottles of Jersey milk with him and gone from door to door in the Dorval residential area showing housewives how they could save money by buying Jersey milk and skimming some of the cream off for other purposes. "They're getting more healthful dairy foods this way," he told me, "and they are not having to spend money for cream. It's right there in the bottle — all they'll ever need." A campaign of this sort is no good without a follow up to check on results, so sometime later he went the rounds again and found that the majority of the housewives he had talked to earlier were still taking Jersey milk — most of them as a matter of course now.

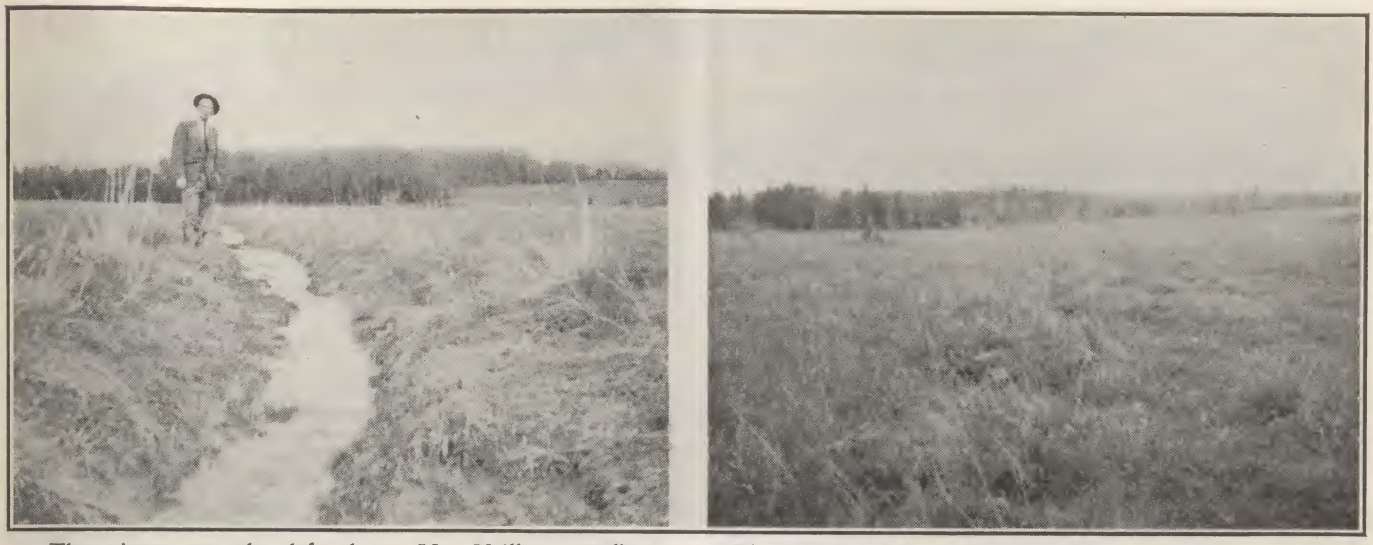
No Rotation

Mr. Veillon is a thourough man in whatever he lays his hand to, and not always orthodox either, "What sort of a rotation do you follow?" we asked. "Rotation?" he said, "none at all. I threw that sort of thinking out of the window long ago. Why should I plow up a good pasture just because it's been down a certain number of years if it's growing thick and succulent? Look at this field," he said, "it's been down five years now and it's still producing the way I feel a healthy field should. Am I to tear it up because I happen to be on a five year rotation?" We certainly agreed that it looked like a fine stand. It had been seeded at the rate of 17 pounds per acre, to Brome 10 pounds, Ladino 1 pound, and Alfalfa 6 pounds. This is the standard mixture used on the farm. All improved fields are top dressed with barnyard manure every winter and harrowed in the spring.

Pierre Veillon, seen in this picture, can be justly proud of this fine stand, note the alfalfa growing thickly throughout the field.

"Don't let anybody tell you we can't grow alfalfa in the Townships," Pierre said to me, "because we can. We have it in every field on this farm and get excellent results, no winter killing and good stands year after year whether it's planted on low lying land or not."

"What is the key to your success?" we asked. "We feel," he said, "that it is drainage that makes the difference. We run ditches wherever necessary to keep the water moving off the fields." We felt that extensive ditch work might increase costs both initially and for upkeep. "No," Mr. Veillon said, "ditching is not expensive with us for it's wet enough that we can lay half sticks of dynamite along the line we want to blow and set the whole thing off with one stick. That's all we have to do," he went on, "there's no upkeep, the drains grass in and keep themselves clean. Here's one of the first ditches we ever dug — several years ago," he added, as we walked over and looked at a clear running grassed-in ditch. "All we did to this was blow it."



The picture on the left shows Mr. Veillon standing beside a typical drainage ditch on his farm, its curved banks have grassed in without any help and it is able to carry a large volume of water away from the surrounding fields.

The picture on the right shows improved and unimproved pastures. The improved is on the right.

Management Pays Off

"Farmers are being forced to use good management practices if they want to make a living off farming," Pierre said, "look at us, for example. We carry a herd of 118 pure bred Jerseys and right now we are milking 95 of them. In addition we keep six bulls to service the herd; we feel that we can get better service from our own bulls than from using an artificial insemination station. We have nothing against the stations," he added, "we think they are excellent for the smaller farm and will do a lot to upgrade many herds whose owners could not afford to keep good bulls. In addition," he went on, "we farm 330 acres, this includes a 110 acre sugar bush some of which we tap for sugar as well as lumber. What I'm trying to say," he said, "is that without a high degree of management an operation this size could get out of hand."

When Mr. Veillon first came to this farm, many of the fields were so wet that even after the mildest of rains they were difficult to walk over and many of them, especially those in the low lying areas, were impossible to work on for weeks. The extensive drainage system that they have already blown and are still in the process of finishing has paid big dividends. Mr. Veillon is of the opinion that far too many farmers in the Townships work their higher land and what low lying land they can when conditions are favorable. "You can't make a

This is one of Wendybrook Farm's better Jerseys.

More World Champions have been milked by DeLaval than by any other milker

THE DE LAVAL COMPANY LIMITED

VANCOUVER CALGARY PETERBOROUGH WINNIPEG MONTREAL QUEBEC MONCTON

The cattle are put out on pasture as soon as it is growing strongly enough to support them.

success of farming that way," he said, "you've got to farm all your land all the time to get maximum results and in a great many cases drainage is the key as it was in ours." "Once you have good drainage," he said, "you can plow the field and start picking the inevitable stones before manuring, working over, seeding and fertilizing."

The heavy work of the last few years is already beginning to pay off. We saw succulent and heavy stands of alfalfa, brome and ladino all through the farm. This has been one of the wettest springs we have known, but the drains were carrying the water off so that fields which a few years ago would have been under water could now carry machinery.

They are already beginning to find that the two upright and three trench silos on the farm are inadequate to hold the heavy volume of grass harvested. Pierre figures they average about 14 tons per acre of grass silage. Apart from about 10 acres of corn no grain is grown on the farm — it's all bought and as additional fields come into production grain consumption is reduced with no reduction in milk flow.

Pierre has a particularly good word to say regarding the Brillion seeder. "I cut my rate of seeding by one-third when I started using this machine," he said. "We could never hope all the seeds we plant would germinate," he continued, "there are far too many of them, therefore, we count on a high rate of mortality; some are planted too low, some too high, but with the Brillion seeder," he said, "I get more seeds in the germinating area of the soil. To cut my rate of sowing means money in my pocket. It's just another example of a capital outlay in machinery paying off in reducing costs. "Management," he emphasized, "we've always got to hammer away at that — it's vital to our success as farmers."

The herd at Wendybrook Farm needs no introduction to cattle men in general and Jersey breeders in particular. They're all among the best their breed can offer. The senior herd sire, Brampton Royalty Beacon, has his first ten daughters now milking in the herd and they're everything that was hoped — milking well and testing 5 to 6 percent butterfat.

Mr. Veillon, who is actively connected with the Jersey Cattle Breeders Association and their official publication "*The Jersey Breeder,*" shows many of his fine herd at Ormstown, Quebec and the Royal in Toronto.

Here, is a farm which emphasizes management. "You've got to know where you're going all the time," Mr. Veillon concluded, "and too many farmers don't."

U. S. Barter In Farm Products

More than $34 million of farm products have been involved in barter deals by the U.S. Government since July 1 last, reports the U.S. Department of Agriculture. Since the end of January this year, the amount involved in such deals has been over $10 million. The products have been used in barter for materials and items for use in foreign aid programs and for national stock pile. Fertilizer was the largest item in the deals since the first of the year, supplies of which the U.S. bartered Japan, U.S., grain being used mostly in the barter deal.

Secretary of Agriculture Benson announced that some $20 million worth of wheat will go to Spain to help pay for U.S., military bases in that country.

Of the total of 623,000 farms recorded by the census of 1951, over 51 percent reported electric power on the farm.

Cattle in the U.S. went up to an all-high record last year. Total number recorded was 94.7 million head. Beef cows increased 6 percent. Milch cows were also up but hog numbers were the smallest since 1938.

Information Please! ✶ ✶ ✶

This section should make interesting reading, for it is given over to the problems of our readers. Problems sent in by Farm Forum and other groups are dealt with here.

IT HAS often been said that sheep ruin a pasture for cattle because they graze so closely, but mostly the fault lies with the pasture. Usually they are too poor, but sometimes it may be that there are too many sheep grazing to the number of cattle.

Pasture areas improved by re-seeding and fertilizing can be kept in good condition and better returns secured from them by grazing with mixed sheep and cattle than by sheep or cattle alone, judging by the average of seven years' results at the Central Experimental Farm in Ottawa.

This seven-year experiment showed that a pasture treated with 10 tons of manure per acre every four years, and grazed with both sheep and cattle, had a carrying capacity 23 per cent greater than an adjoining field given a similar application of manure but grazed with sheep alone. Compared with another adjoining field of permanent pasture, receiving no manure and grazed by sheep alone, the increase was 50 per cent.

On a fourth adjacent field, not manured but fertilized with 100 pounds of sulphate of ammonia per acre each year plus 300 pounds of superphosphate and 75 pounds of muriate of potash applied every four years, mixed grazing gave an increase of 43 per cent over the manured field grazed with sheep alone; 6.6 per cent over a similarly fertilized field, grazed with steers alone, and 74 per cent more than the untreated field.

Each of these fields consisted of four acres. In terms of actual meat produced, the untreated field showed 159 pounds average yearly gain in weight by the sheep grazed on it. The manured field grazed by sheep alone produced a gain of 192 pounds. The manured field grazed by sheep and cattle produced a gain of 126 pounds for the sheep and 145 pounds for the steers. The fertilized field produced a gain of 152 pounds for the sheep and 165 pounds for the steers. A field given the same fertilizer treatment and grazed by steers alone produced a gain of 248 pounds for the steers, still below either of the mixed-grazed fields in total meat production. All gains are based on 150 days of grazing.

Members of the Animal Husbandry Division at the Farm, state: "Grazing with cattle and sheep resulted in a definite increase over grazing with sheep alone. This was not only due to the greater number of stock carried on that pasture but also to the higher daily gains of the lambs in the mixed-grazed fields. There was a better utilization of the grass available. Little of the herbage was noticed going to seed in the mixed grazed fields, while there was considerable waste on that account in the fields grazed by sheep alone. Thus the mixed-grazed fields did not require clipping. The quality of the sward was also improved. The mixture of clovers and grasses was considered almost ideal in the mixed-grazed fields, while there was little improvement in the others.

"A certain amount of care must be exercised, however, in the proportion of sheep to cattle. Three ewes and their lambs to one two-year-old steer gave excellent results."

Cattle and sheep make good mixers but they certainly should not be in this field until a lot of work has been done on that hillside.

Perhaps you

CAN afford

FARM ELECTRIFICATION

Ask your friendly 'Royal' manager to tell you how a Farm Improvement Loan can be used for Farm Electrification that will pay off for you with better and easier living.

- New edition of the booklet, *"Farm Improvement Loans"* is available. For your copy write the Advertising, Dept., Head Office, Montreal.

THE ROYAL BANK OF CANADA

YOU CAN BANK ON THE "ROYAL"

Farm Forum News And Views

The above panel of pictures was taken by your Secretary on his tour of the Spring rallies. Starting in the upper left, that's your new President Walter Hodgman enjoying a chat between sessions. In picture 2 are Stan. Hardacker, Gordon Shufelt and Ernest Bradley at the Brome rally. At this same rally some of the entertainment was supplied by Herman Ommerli, a new Canadian from Switzerland who is a member of the Dunkin Forum. The Lees and Bert Morris of the Mount Shonyo Forum are seen in picture 4, they also were attending the Brome rally. The next picture shows a general view of the Compton rally members in one of their sessions and picture 6 shows the members attending the Missisquoi rally.

Three Ladies On Farm Forum Executive

For the first time in the history of the Quebec Farm Forum Association three ladies have been placed on the 1954-55 Executive. The complete executive is made up as follows:

Honorary President.....Dr. W. H. Brittain
Past President.....Mrs. Norma Telford, Shawville
President.....Mr.Walter Hodgman, Birchton
1st Vice-President.....Mr. Keith Bradley, Knowlton
2nd Vice-President....Mrs. Dorothy Green, Compton
Executive member .....Mrs. Gladys D. Sly, Shawville

We may be heading into the good old summer — a time of the year when forum activity is usually at a pretty low level, but this year it's different for plenty of forums are carrying on a limited activity all through the year. For instance, the Lochaber, Bishopton and Arundel forums, to name only three, are meeting all summer. What about yours?

These forums and others like them are not just enjoying socials either. They've got projects going, many of them are helping to improve the landscaping around their homes, others are working on different projects but they are all useful and improve community living.

Modern Bug Killers

by F. O. Morrison

Hordes of bugs descend upon people, livestock and plants all through the summer. Here we get some information on what some of the old and some of the new bug killers will do to help us.

THOSE cabbage, riddled, fouled and rendered useless by green worms, that patch of onions that rotted in the ground from maggot attack, those carrots that were so full of maggot holes that you threw them out, that second sack of flour which you donated to the little red beetles, the mental and physical anguish suffered when Mary brought head lice home, and your concern when cockroaches turned up in the kitchen: all that loss and worry could have been avoided by the timely and correct use of modern insecticides. Only the orchardist is fully aware of these phenomenally effective tools today.

Most of us cannot hope to master a knowledge of which of the many "bug killers" is most effective on each occasion. But here is a helpful trick for both the retailer who has them on his shelf and the consumer who needs them. Though "bug killers" are sold under many thousands of trade names, each container carries a label telling what the chemical that does the killing, *the effective ingredient,* is. *Form the label reading habit.* True, the chemical names are often long and there are a hundred or so of them, still too many to remember, but even these one hundred or so can be grouped into about eight classes. Now any one of us can remember a few facts about eight classes of materials. In these days, we are stressing intelligent buying and use of all products. That can be easily extended to "bug killers". Very briefly the eight most important groups of insecticides, some of their characteristics and the names of a few of the members are as follows.

The Flanders Farm Forum is one of the biggest in Quebec.

Arsenicals and Fluorine Compounds

These are the old fashioned "bug killers". All are powders, which you dust on or spray on in water. All are very poisonous to man and animals, hence leave a poisonous residue on treated leaves and fruit, and practically all of them have to be eaten by the insect before they kill it. They are, therefore, useless against insects that feed under the surface sucking out plant juices or blood. They vary in their safety to plants. Here we can put such familiar materials as *lead, arsenate, calcium arsenate, Paris green* and *cryolite.* A few such as sodium *fluosilicate* are too injurious to use on plants but have been successfully used as dusts against cockroaches and sprays to protect wool from clothesmoths. In general, the use of these materials has fallen off with the advent of newer ones.

Insecticides Derived from Plants

Liquid extracts and ground up parts of certain plants have long been known to kill insects. They seldom injure other plants when put on them, and with *the very important exception of nicotine (which is extremely poisonous if eaten or even on the skin of animals)* are reasonably safe to man and animals. Unfortunately, they lose their killing power for insects very quickly after being exposed to the air and because they have to be grown and

YOUR BUILDINGS ARE
VALUABLE!
PROTECT THEM
against
LIGHTNING
FIRE WEATHER
with "SECURITY" Barn Roofing
galvanized or aluminum*

Dependable, permanent protection. Easy to apply. Smart Appearance. Long term economy.

Send measurements today for free estimate and folder giving full particulars.

* Manufactured from ALCAN "KINGSTRONG" ALUMINUM SHEET

ESTABLISHED OVER 100 YEARS

WESTEEL PRODUCTS LIMITED
4107 RICHELIEU ST. — MONTREAL, P.Q.

processed are quite expensive. *Nicotine,* derived from tobacco, and sold as a 40 percent solution, is still one of the best killers for soft bodied insects such as plant lice that suck plant juices. *Rotenone,* usually sold as *Derris powder* (4 percent rotenone), is a very safe and effective killer for beetles and caterpillars on plants such as garden lettuce and on forage crops soon to be eaten. It also controls pea aphids, corn borers, lice and sheep ticks and is the only effective material against warbles. *Pyrethrum,* is almost completely non-toxic to man, and has recently been greatly improved by adding piperonyls. This is the safest product for use in pantries, food stores and food processing plants. The solvent in which it is dissolved may injure plants and animal skin. The new *allethrin* is manufactured in chemical plants but resembles pyrethrum in its safety and effectiveness. *Ryania* is used for European corn borer control. *Sabadilla* is effective vs. squash bugs and other sucking insects.

Chlorinated Hydrocarbons

These are manufactured insecticides. They are famous for their ability to remain on a surface and retain their killing power for a long time so that insects coming along and walking on them are killed. They nearly all kill by contact, or if eaten, and some give off fumes that kill insects. Manufacturers sell them as solutions in liquids that will mix with water, as dusts, or in pressure resistant containers with gases that drive them out in a fog-like spray when the value is opened, or as wettable powders for use with water as coarse sprays. The last form is the most useful and popular. Different chlorinated hydrocarbons differ greatly in their safety to man though most are reasonably safe on plants especially in powder form. All of them are dangerous on the skin in solution.

DDT, the first discovered is still the most useful. Houseflies in most areas have developed resistant strains. Its use in dairy barns and on dairy cattle or animals to be slaughtered is not permitted because it turns up in the milk and fat of such animals. However, for biting insects on crops where all the residue will be washed off before harvest, for lice on non-food animals other than cats, for bed-bugs, for potato pests, and for mosquitoes, it has not been excelled. It is also useful for soil insects such as cutworms and wire-worms.

This article will be concluded next month

"JOE BEAVER" By Ed Nofziger

Forest Service, U. S. Department of Agriculture

"When I said 'Trash' I wasn't referring to the litter on the camp ground."

One Problem Solved

It's not too difficult to arrange an exercising pen for one bull, but it becomes quite a problem at an insemination station where there are many. This is how it's done at the insemination plant at Milner, B.C. The ring is oval in shape, one-eleventh of a mile in length, and has an asphalt floor. The sides are 33 inches apart and the roof is low and of solid construction. The narrow passageway and low roof prevent the bulls from turning and rearing up, all they can do is follow each other around the ring. "Cutting gates" are provided to let the bulls in and out one at a time. Plans of this structure have been supplied to Finland through FAO and a similar exerciser is being built at an insemination station in that country. There are now 23 insemination stations throughout Canada at which exercising bulls is a problem.

Dairy Products

Cow numbers up. According to the Marketing Service of the Department of Agriculture, the number of milk cows on farms of dairy correspondents was about 4 percent greater in March 1954 than in the corresponding period last year.

A Vanishing Landmark

THROUGHOUT most of the Townships as well as Chateauguay, Huntington and other counties south of the river, up through Gatineau, Pontiac and Papineau a round barn makes you stop and look, they're so scarce, but down in a small corner of Stanstead County around Kings Croft and Ways Mills there are half a dozen or more of these old red barns still standing, still going concerns.

It's down in this corner of rolling, grass-covered slopes and solid bushes that the farm of Mr. W. B. Holmes stands. It was in 1907 that Mr. Holme's father built the old round barn which still serves the farm today; nearly 50 years of solid service has come out of that barn and it's good for many more. Sure, the 10 foot high cupola may have to be removed and the great sweep of the walls has been reinforced on the second floor to stop them from straining but the barn is still essentially firm and certainly weather-proof.

The picture in the upper left hand corner shows a general view of the barn when approaching from Kings Croft. The next picture shows the main ground floor section which holds 40 head of Holsteins. Picture three shows the inside section of the barn where the young stock are housed; note the section of curved overhead track which carries the barn cleaner in both this and the previous picture. The main wall back of the calf is the silo which is seen in picture four. This is the center of the barn and runs right up through the second floor to the third floor where we see Mr. Holmes standing; just in front of him is a section of the floor which may be removed when the silo is to be filled. The grain bins are also filled from up here through another hole in the floor.

In earlier days, Mr. Holmes says, they used to drive the team and wagon up onto the third floor and pitch the hay down into the mow on the second floor but the increasing weight of tractors and other machinery made this a pretty risky proposition and as they now chop

RAPID GRIP AND Batten LIMITED

384 Vitre St. West
MONTREAL, QUE.

both their hay and straw and blow it in from the ground this third floor is used very occasionally mainly as a storage place for lighter farm equipment. In the final picture is the pattern traced by the great curved rafters as they reach in to the center. We snapped this because we thought it made an unusual picture.

The height from the ground floor to the eaves is 30 feet, from the ground floor to the top of the cupola is approximately 70 feet, and the distance across from one wall to the other is 80 feet — it's a big barn, alright.

We asked Mr. Holmes why be thought round barns never became popular. "Well," he said, "it's because there is too much waste space in them. Take the third floor as an example," he said, "you can't use it for any purpose other than driving in to pitch the load down and even that is a risky business with modern heavy machinery. Then, too you can't use a hay fork as in the conventional type barn, you've just got to drag it off." The hay and straw mows on the second floor were the largest we had ever seen. We commented on this and ask Mr. Holmes if they had ever filled them. "Only once or twice that I can remember," he said, "and that was a good many years ago."

"Of course," Mr. Holmes said, "the barn that we call 'conventional,' today is rapidly reaching the stage where it too may go the way of the round barn. What with grass silage, chopped and baled hay and straw the modern barn is a one storey affair."

"In theory," Mr. Holmes continued, "it was figured that round barns would be a lot easier to operate. For instance, the silage was right there in the center, and so was the straw and hay, but it didn't quite work out that way for unless there were several outlets from the silo, hay and straw mows, which there weren't, it meant carrying the feed around the bulky center section." We looked at the old barn again for while it may last for plenty of years yet it was one of the last of its type.

Pole Barns More Popular

In these days of high cost construction it comes as a welcome relief to know that some types of farm construction offer a low cost method of replacing an old barn or building a new structure. The Pole construction offers a lot for the outlay of minimum funds.

Using this method, farm buildings can be erected which will be serviceable for about fifty years. Basically they consist of poles set in the ground cherkerboard fashion to support the roof and sidewalls. Rough lumber can be used throughout and cutting and fitting reduced to a minimum. Tests have shown that untreated Eastern cedar poles will last for about twenty years while pressure-creosoted pine poles have a service life of approximately fifty years. Because of the high cost of conventional barn construction pole structures are becoming increasingly popular and are being used to house many kinds of livestock.

As an example of what water erosion can do it has been calculated that the Mississippi River discharges 2 million tons of soils into the Gulf of Mexico every 24 hours.

Cut Costs With A Clean Range For Poultry

Poultry thrive on a well kept range.

A good clean range is essential for the successful rearing of strong vigorous stock. Clean range means land upon which no chickens or other poultry have been kept for a period of time long enough to allow all diseases and parasite eggs to die—usually two or three years.

Since disease is perhaps the greatest limiting factor in poultry production, isolation and sanitation throughout the brooding and rearing periods are of first importance. The young stock should, therefore, be raised on an area isolated from the pens of older birds, preferably on ground not ranged by chickens for several years, since some of the commonest diseases of poultry are passed along from the old birds to the young stock.

The isolated area should be a large enough piece of

land that rotation of pastures can be employed. For instance, if a field were divided in quarters, it is easy to plan a rotation whereby the flock is moved each successive year onto a clean alfalfa pasture. This allows three years for each field to become clean before again having poultry on it. There are various kinds of rotations. At the Kapuskasing Experimental Station, for instance a four year rotation of one year oats and three years alfalfa and clover, has given satisfactory results.

Too much emphasis cannot be placed upon the value of good clean pasture in the poultry rearing and feeding program. It is a known fact that from ten to twenty per cent of a growing bird's feed requirements, from ten weeks of age to maturity, may be saved where good range is available. Therefore, pastures should be kept short lush, and leafy so as to supply a feed of high nutritional value. Since it is the tender new growth that is most appetizing and makes the most nutritious pastures the mower should be run over the range to keep the green feed tender whenever the growth becomes too coarse and high. The sunshine also helps to keep the chickens healthy and promotes the proper development of bones.

The feed and watering troughs should be moved every few days for distance of at least fifteen feet so as to reduce the risk of contamination of the ground around them. The importance of having portable shelters and of moving them frequently, cannot be emphasized too strongly. This practice will improve the general sanitation on more completely utilize the pasture crop.

Another factor of immense practical importance relates to the over crowding of the chicks on range, which increases mortality. An acre of alfalfa range will accommodate 400 birds. Growing chicks which have access to a clean range will develop into strong and healthy birds at lower feed costs.

Ladies Only

Fruit Drinks

by **Alice M. Stickwood**

Pity me, God, for I die of thirst;
Take me out of this land accurst;
And if never I reach my home again,
Where earth has springs, and the sky has rain,
I will dig a well for the passerby
And none shall suffer from thirst as I.

— JOHN GREENLEAF WHITTIER.

BEING able to whisk drinks together is largely a matter of being prepared and that means keeping on hand a supply of the necessary ingredients. Ice, of course, is the first requisite, as most of us like our drinks iced. But that is no problem if you have a refrigerator and keep the ice trays filled; or if you keep the ice compartment well stocked with ice, you can use some of it without lowering the refrigerator's efficiency.

Your kitchen cupboard should hold a supply of canned or bottled fruit juices, tomato juice, vegetable juice, gingerale and bottled carbonated water. A few of the juices you will want to try are pineapple, orange, lemon, grape and grapefruit and fruit nectars. Two or three cans or bottles should be stored in your refrigerator ready for any emergency, together with the fresh fruits such as lemons and oranges.

Beverages made from fruit juices range from the simplest type of lemon and orangeades to the more elaborate punches made from mixed fruits and juices. Plain or carbonated water may be used with any cold drinks.

Cold fruit drinks may be served in tall pitchers filled with cracked ice or ice cubes. Punch, which is usually reserved for party service, should be poured over a block of ice arranged in a large punch bowl and should be ladled into four ounce glasses with handles. Sometimes orange or pineapple ice is added to punch. Punch may be served in tall glasses for table drinks.

If you serve fruit drinks often, keep a supply of sugar syrup on hand. In this way one is sure the sugar is dissolved in the drink and not settled in the bottom of the glass.

Sugar Syrup

In a saucepan, combine 3 cups granulated sugar and 3 cups water, bring to a boil, stirring until sugar is dissolved. Cover and boil five minutes without stirring. Cool, pour into a clean jar. Cover and store in the refrigerator. Makes 4½ cups.

Lemonade

2 tablespoons lemon juice
2 tablespoons granulated sugar or
¼ cup sugar syrup above
1 cup ice water or
4 ice cubes crushed
Cherries or fresh mint.

Mix lemon juice, sugar or sugar syrup in a tall glass. Add ice water or ice cubes. Stir. Decorate with cherry or sprig of mint. Serve.

Limeade

Instead of lemon juice use 4 tablespoons lime juice for each glass. Garnish with thin slice of lime.

Orangeade

Substitute orange juice for lemon juice and reduce the sugar syrup to taste.

Grapefruit Juice and Grape Juice Cocktail

Combine 1½ cups each grapefruit juice and grape juice. Sugar syrup may be added if desired. Chill and serve in cocktail glasses. Serves 6.

Apricot Nectar

Add lemon juice to taste to canned apricot juice. Pour over crushed ice and serve.

Rhubarb Punch

10 cups pink or red rhubarb
2 cups sugar
1½ cups water.

Cook together until mushy, drain juice off through a sieve. To 5 cups of the juice add 1¼ cups pineapple juice, ¼ cup lemon juice.

If a deeper colour is desired add raspberry juice. Chill well before serving. Makes 20 servings.

Currant Punch

Juice 1 lemon
2 cups currant juice.
Juice 3 oranges
2 cups water
1 cup sugar

Combine the sugar and water. Boil for 5 minutes. Cool Meanwhile combine the currant juice, orange juice and lemon juice. Add the syrup, chill and serve. If currant jelly is used, whip 2 cups jelly to a froth. Add 1 pint boiling water, ¼ cup sugar, the juice of 3 oranges and 2 lemons. Chill and serve diluted with ice water to taste. Garnish with slices of orange. Makes 6 servings.

Cider Punch

1 cup lemon juice
2 cups orange juice
Rind of one lemon — cut in a spiral or sliced lemon
Rind of one orange — cut in a spiral or sliced orange
2 cups pineapple juice
2 quarts cider
2 quarts gingerale.

Mix the fruit juices and rinds or slices and cider in a punch bowl. Just before serving add a block of ice and gingerale. Makes 60 servings.

Tea Punch

2 cups strong tea infusion
¾ cup lemon juice
1½ cups orange juice
½ cup sugar syrup
2 cups crushed pineapple
2 cups sweet cherries or
2 cups strawberries sweetened
1 quart gingerale

Mix tea, fruit juices, syrup and fruit in a punch bowl. Just before serving, add a block of ice and gingerale. Makes 50 servings.

Fruit Punch

3 quarts unsweetened pineapple juice
Juice of 8 lemons
Juice of 8 oranges
Juice of 3 limes
2 cups sugar
1 cup mint leaves
4 quarts dry gingerale
2 quarts plain soda water
1 pint fresh strawberries — quartered.

Combine pineapple, lemon, orange and lime juice, sugar and mint leaves. Chill thoroughly. Just before serving add gingerale, soda water and strawberries. Pour over large block of ice in punch bowl. Float thin slices of lemon and lime. Makes 35 servings.

Lemonade for 100 people

Boil for 10 minutes:
4 cups water
4 lbs. (8 cups) sugar
Cool the syrup Add:
7½ cups lemon juice
Stir in the contents of
2 (No. 2½) cans pineapple
Add 8 oranges sliced
4 gallons water

Chill. Serve with ice. Makes 100 servings.

Decorative ice cubes may be used in iced drinks. Fill a refrigerator tray with water. Place in each section one of the following: a maraschino cherry; an unhulled strawberry; a piece of lemon or pineapple; a sprig of mint.

Flavoured ice cubes

Into a small freezing tray, empty thawed contents of 1 can frozen lemonade, limeade, orangeade or grape juice concentrate. Set ice cube section in place. Slowly fill with water. Freeze.

Recommended For Freezing

Thinking of freezing fruits and vegetables? Then look over this list for best varieties.

Strawberries: Louise, Premier, Senator Dunlap, Sparkle.
Raspberries: Cuthbert, Latham, Viking.
Blueberries: Native and cultivated varieties
Peaches: (with added ascorbic acid) Veefreeze, Valiant, Vedette, Red Haven.
Cherries: Early Richmond, Montmorency, Velvet
Asparagus: Mary Washington, Paradise.
Broccoli: Italian Green Sprouting.
Brussel Sprouts: Long Island Improved.
Corn: Golden Freezer, Golden Cross Bantam, Spancross, Kingcrost Bantam, Golden Gem, Dorriny.
Lima Beans: Henderson Bush, Burpee Bush, Fordhook.
Snap beans (green): Tendergreen, Stringless Green Pod, Topcrop.
Snap beans (wax): Brittle Wax, Extra Early Wax, Pencil Pod Black Wax.
Peppers: Early Wonder, Harris Earliest, California Wonder.
Peas: Thomas Laxton, Glacier, Early Windemere, Tall Telephone, Freezonian.
Spinach: Giant Nobel, Bloomsdale Long Standing, King of Denmark.
Cauliflower: Snowball, Erfurt.

A new anti-bacteria compound, if fed to cows, will result in milk which takes two to four times as long to turn sour as milk from cows fed ordinary rations. Known as "menadione," the compound produces milk with a lower bacterial count that would remain sweet longer, especially during the period before pasteurization, without adulteration or change. One pound of menadione is enough for 50 cows for one year, according to experiments.

"Good Catch" Not Just Luck

THE SUCCESS of a sod crop depends in a large measure on its early establishment and a "good catch"

Good seed is, of course an essential, but the choice of grasses or clover must depend on the condition under which they will be grown if best results are to be obtained. Grass can stand a wide variety of soil, moisture and climatic conditions, provided the grasses are chosen on the basis of the soil type and conditions for growth.

For example, on well-drained soils that may even tend to be dry Brome and Orchard grass are both choices. However, on lands where drainage is not as good Meadow Fescue and Timothy will give much better results. Then, if the land may be subject to flooding, the wise choice will be Reed Canary grass and Red Top.

Clovers are even more choosey in their preference. To begin with, they all like plenty of lime. Highly acid soils will not give good results with clover unless they are limed. Alfalfa also insists on good drainage. However, Red Clover and Alsike are more tolerant of moist conditions, while the shallow-rooted Ladino and White Dutch clovers actually favour the moister areas.

Thus when selecting mixtures, it is important to keep in mind the fields on which they are to be grown. Too often, it is decided to plant alfalfa, despite the fact the field may not be suited to it.

Another important point in getting a "good catch" is the fertility level of the soil. Grass can and does live on low fertility soils, but it cannot thrive and give the high level of production which most people want. The cost of seeding down plus the high potential value of the crop, make it false economy to skimp on fertilizer when seeding down.

With these sod crops, harvests are expected from one seeding. Having the fertility in the ground prior to seeding is more effective than top dressing after the sod is formed. However, if there is a good fertility level to start the crop, subsequent top dressing will be valuable in keeping up yields.

In order to assure this high level of fertility the advance application of barnyard manure and fertilizer is essential. However, the fertilizer can only be applied to best advantage after the soil has been tested to find what plant food is needed.

Hay and pasture are among our important crops and provide much of the cheapest and best feed to be found on any farm. This in turn makes it the part of wisdom to use the best available seed of the varieties best suited to the field to be planted. Then give the seed good fertile soil to grow in, and the crop will repay many times for the trouble taken in starting it. "Good catches" of grass and clover depend much more on good management than on good luck.

The Costly Warble Fly

Losses estimated at $15,000,000 a year in Canada are attributed to warble flies which are found in every part of the country where cattle are raised.

This pest is injurious during both its adult fly stage and parasite grub stage. While laying eggs, the flies cause loss by frightening and worrying animals. This results in reduced milk yields, poor gains in weight and possible injury or even death of the animal while trying to escape the flies. Cattle infested with grubs are unthrifty and give reduced milk yields. Grubs also cause loss by injuring cattle hides.

There are two common species of warble flies in Canada —the common cattle grub or heel fly, and the northern cattle grub or the large warble fly. Life histories and habits of both species are similar. Eggs are laid on bright days on legs and lower parts of cattle. When grubs hatch they penetrate the skin and migrate through the system until coming to rest in late winter under the skin of the back where they remain for about two months.

When mature, grubs force their way through breathing holes they have made in the skin of the back, fall to the ground and form pupae from which the adult flies emerge in one or two months. The life cycle requires about one year, nine months of which is spent as a grub in the animal.

The most effective method of controlling warble fly damage is by spraying or washing cattle with a derris powder containing five per cent rotenone ("Warbicide" 5). Using this method, outstanding reduction in warble fly damage has been obtained in many Canadian communities where warble fly control has become compulsory.

C.I.L. AGRICULTURAL DEPARTMENT.

Are Insecticides Destroying Our Wildlife?

Tests by the U.S. Public Health Service and the Tennessee Valley Authority have shown that airplane application of DDT at the rate of 0.1 pound per acre has been effective in eliminating malaria-carrying mosquitoes, Mr. Hoyt reported. Those who have been concerned over the widespread use of DDT for mosquito. control should be relieved to know that after 16 consecutive applications, there was no injurious effect to the resident fish population.

While Mr. Hoyt's statement referred to the United States, it can be applied to Canada as well since similar conditions exist here. As long as insecticides are used according to government-approved recommendations usually found on the label of the container, there should be little fear that modern agricultural chemicals are a threat to Canadian wildlife. Dead forests and grasshopper-devastated prairies are infinitely more dangerous.

FOR SALE AT ALL CANADIAN NATIONAL RAILWAYS STATIONS, TELEGRAPH AND EXPRESS OFFICES

Potatoes Vary In Eating Quality

It is the variety planted that has the most influence on the eating quality of potatoes.

In Canada it is generally considered that a potato that is mealy when cooked, a uniform white or cream colour and of pleasant flavour is of good quality. These good points of course are not entirely due to variety. The amount of fertilizer applied and the rainfall during the growing season have an important bearing, says H. T. Davies, Fredericton Experimental Station.

It is generally accepted that the specific gravity of a potato is an indication of its quality; the higher the specific gravity the greater the starch content of the tuber and the more mealy the potato when cooked. It is on this basis that quality determinations are made, and as a result of tests carried out for a number of years some interesting comparisons can be made between various potato varieties.

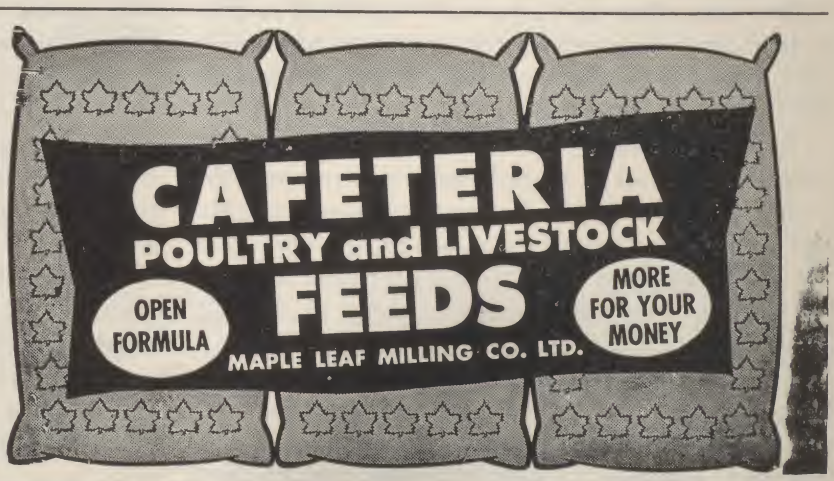
In an ordinary growing season potatoes that average 15 per cent starch contents are of good eating quality, whereas a difference of one to two per cent lower reading will indicate that in all probability the tubers will be wet or soggy, when cooked. For example, after testing 25 samples of the variety Green Mountain over a six-year period the average starch content was 15.5 per cent, whereas the variety Katahdin tested over a similar period averaged only 13.7 per cent.

The new varieties Keswick and Canso have also been tested for their quality for a number of years and approximate Green Mountain. Of 18 samples of each variety tested in 1951 Green Mountain averaged 15.6 per cent starch, Keswick 15.1 per cent and Canso 15.3 per cent. In 1952 the figures for a similar number of samples were 15.9 percent for Green Mountain, 15.5 per cent for Keswick and 15.3 per cent for Canso.

Of other well known varieties the Russet Burbank, or as it is sometimes known, Netted Gem, is one of the best quality potatoes as far as starch content is concerned. Over a six-year period it has averaged 15.6 per cent starch compared with 14.3 per cent for Sebago, 14.5 per cent for Warba, 13.8 per cent for Bliss Triumph and 13.1 per cent for Pontiac.

From these figures it can be clearly seen that variety plays a very important part in cooking quality of potatoes. The housewife who buys potatoes by name will naturally ask for varieties which have good eating quality.

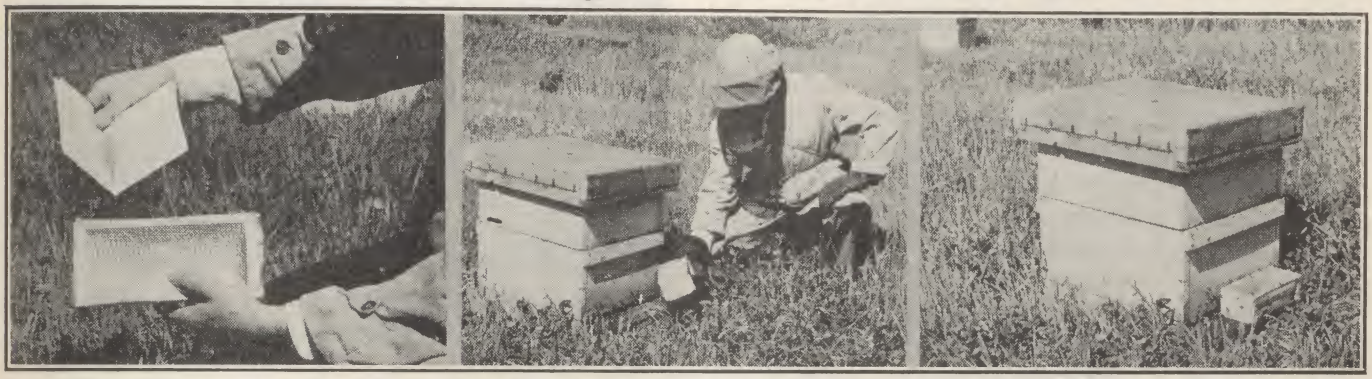
More babies were born in Canada in the first three months of this year than in any like period in Canada's history and 12 percent more than a year earlier.



DEPARTMENT OF AGRICULTURE

Activities, Plans and Policies of the Quebec Department of Agriculture

Making Bees Busier



The pollen must be replaced frequently; a folded piece of paper makes a convenient funnel. The filled insert is carefully placed at the entrance to the hive in such a way that the bees have to pass through it to get out.

EVERY orchardist knows that most apple trees must be cross-pollinated to set a good crop of fruit; that is, the pollen which fertilizes the blossoms must come from some other variety. In orchards where a number of varieties, all of which bloom at about the same time, are growing, this ordinarily doesn't present any problem! Nature takes care of the situation. But it does happen that sometimes trees in a certain part of an orchard are self-pollinated; the bees working only in one tree or variety. Consequently, the set of fruit may be poor.

Taking a tip from work that has been done in Washington and in Nova Scotia, Prof. Taper of the Horticulture Department at Macdonald College is trying the experiment of deliberately supplying pollen of a different variety to the bees in the orchard in an attempt to make sure that every tree gets pollen from a variety other than its own. He buys apple pollen from a commercial firm and puts it in containers (inserts) in front of the entrance to the hive in such a way that a large proportion of the bees pass through the pollen on their way out. This means that a bee which has passed through the imported pollen goes into the orchard carrying some of this different pollen and transfers some of it to every blossom it visits.

Gardeners sowing small seeds often mix the seed with sand to give bulk and make it easier to handle. The same thing is done with the commercial pollen when it is packed, and it is diluted with Lycopodium spores. It takes about two ounces of pollen for each acre of orchard, and when the bees are active the pollen in the inserts is used up so fast that it must be renewed about three times a day.

The pollen must be available to the bees when the trees are in flower, but not before, so the first placing is done when the orchard is about 10% in bloom. The suppliers believe that the bees go for this pollen in a big way and as soon as they get a taste of it they roam all over the orchard searching for more of the same. If they find pollen in the blossoms, they settle down happily to work. Should one have to bring bees from outside, and should this be done too early, or before the blossoms are open, the bees may give up the idea of roaming and just work around the hive, with the result that the orchard may be poorly pollinated that year.

The work at Macdonald College is a preliminary attempt to find out if this theory is sound and to find out what proportion of the imported pollen is actually carried to the trees and how much is used immediately by the bees.

Commercial growers in the United States claim large increases in yield through this method, which they have been using for the last five years. It hardly seems necessary to go to all this work and expense in orchards where the set is usually so heavy that thinning must be done later, but in those cases or those places where pollination is always poor, it may work wonders. We should know more about it by Fall.

Butter stocks rose on May 1, to over 42 million pounds from last years' 27 million, but holdings of cheddar cheese declined to 22 million pounds from 26 million pounds. Evaporated milk stocks dropped to nearly 19 million pounds from just over 26 million pounds, and skim milk powder to just over 7 million pounds from 12 million pounds. Stocks of margarine rose to 3 and one-half million pounds from just over 3 million pounds.

Lime is still Needed

Agronomes from 19 counties of the Eastern Townships met with the staff of the Lennoxville Experimental Station last month to discuss soil amendments with particular reference to lime requirements, and to see for themselves something of the work of the station. The soil amendment question was the one in which they were most interested, and W. S. Richardson of the Station staff kept them interested with his talk on this subject.

Mr. Richardson started out by reminding the agronomes that lime plays a dual role in the soil; as a source of calcium and magnesium, and as a corrector of soil acidity, a condition which is all too prevalent in Quebec. Ground limestone, quicklime and hydrated lime are all available in this province. 56 pounds of quicklime has the neutralizing power of 74 pounds of hydrated lime or of 100 pounds of limestone. Whichever source is used, it is important that it be finely ground. It is claimed that limestone that is fine enough to pass a 60-mesh screen begins to have an effect almost as soon as it is applied, while a product so coarse that it passes a 20-mesh screen might just as well not be used, it takes so long for it to have any effect in the soil.

Soil should always be analyzed before lime is applied, for it is possible to make a soil too alkaline. The amount of lime needed to bring the soil reaction to proper point depends on the type of soil. For example, a sandy soil will need only about half the lime that a heavy or muck soil will require for the same result.

Liming can be done at any time of the year, but the best time is in spring when the seed bed is being prepared, so that the lime can be mixed thoroughly with the soil. On pastures and fallow fields, autumn application is preferable, since the lime has all winter to work down.

Once acidity has been corrected soil analyses should be made periodically every two or three years to make sure that the reaction is not slipping back to the acid side.

Alfalfa and sweet clover require a soil with a pH of from 6.5 to 7. Barley, corn, most pasture grasses. Alsike clover, Ladine, red and white clover, millet, oats, peas, raspberries and wheat do best in soil with a pH of between 5 and 6.5. However, potatoes and strawberries do better in acid soil.

Another Barley Contest

The 1954 Barley Contest will be held this year in the district west of Riviere du Loup on the south shore and in all counties west of Quebec on the north shore, except Abitibi, Temiscamingue, Chicoutimi, Roberval and Lake St. John

A farmer wanting to enter the contest (the winner of which is assured of a premium market for his crop) is required to sow not less than 5 acres of barley of one of two varieties — Montcalm or O.A.C. 21. He must agree to clean at least 40 bushels by the first of November and have it ready for inspection and grading. Summer inspection of the growing crop will also be made.

Danger — Keep Away

Show this picture to your children and warn them that if they find anything like this lying around, to leave them strictly alone until an adult has removed them.

Blasting caps are perfectly safe when properly handled. But children can easily mistake them for empty 22 cartridges, firecrackers or pencils covers, and many a child has been maimed for life, and even killed, by playing with them.

They are made, as most of you know, of aluminum or copper, and may be anything from one to five inches long and about one quarter of an inch in diameter. The electric type has a length of wire attached; the other is detonated from fire by a fuse. Both are dangerous in inexperienced hands.

What About Hogs?

Some 500 hog breeders of the St. Hyacinthe-Bagot district heard Adrien Morin discuss the outlook for the hog industry in Quebec last month. Here is a summary of what he told them.

Last year, according to Mr. Morin hog raising brought the largest net returns to the farmer, except for those who sell milk to the fluid market. From now until the month of August, hog production in Canada will be smaller than the demand, which will be about 100,000 hogs per month; thus he forsees a period of good prices at least until the end of the summer.

By fall marketings can be expected to reach 130,000 to 140,000 per week, but he did not feel that there was any great danger of drastic price drops, and certainly prices will not fall as far as was formerly feared. The American market stands ready to take good products. He urged farmers to maintain their production and could see no reason for any lack of confidence for the business.

Taking part in the meeting were Alphonse Deschenes of the Livestock Branch at Quebec, Vic Pelchat of Canada Packers, Albert Desrosiers, federal fieldman, Dr. Nadeau, M.V. Thomas Tremblay, Bagot county agronome, arranged the meeting.

Explaining The Sheep Policy

In 1951, just three years ago, the Department of Agriculture launched a new sheep breeding scheme, and its results are already proving most interesting.

The programme was outlined by Pierre Labrecque, Chief of the Livestock Division, at a meeting of sheep breeders held last month at St. Methode de Frontenac.

The policy, organized by the Department to help sheep breeders all over the province to get better market lambs, depends on the principle of cross breeding, and it is hoped, through this programme, to increase the number of sheep kept in Quebec. Assurance is given that the programme will be continued as long as it is needed.

Four sheep-breeding centres have been set up at Frontenac, Riviere du Loup, Temiscouata and Rimouski. At the outset there were 41 members in the clubs, owning 352 sheep; but by last fall there were 126 members and 1,549 sheep. The Frontenac Club started out with 8 members and 86 ewes; last fall the membership was 11 and 159 ewes had been bred to black-face Hampshire rams.

Marc Aurele Dionne, animal husbandryman with the Department, gives some figures on the results so far obtained. He reports that last year, these four breeding centres had 78% of their market lambs graded "A", whereas the average for other parts of the province, where this cross-breeding programme is not in vogue, the percentage of "A" lambs was 51.8%. Comparing the quality of the fleece, the cross-bred sheep gave 70% choice special and 18.06% regular as compared with 47.5% choice special and 40.1% regular for standard Leicester fleeces. Mr. Dionne uses these figures to prove his point that the cross-bred sheep are superior to others.

L. V. Parent, manager of the Canadian Cooperative Wool Growers, predicted that there would be no overproduction of wool in the next few years, and urged the breeders to take pains to deliver clean fleeces, which are worth 20¢ more a pound. Good fleeces brought from 40¢ to 45¢ a pound last year.

Demonstrations on treatment of sheep for parasites, of castration and docking were given by Mr. Parent and Mr. Garret Chapman. Also present at the meeting, which brought together about 75 breeders of the district, were J. J. Gautreau of the Department of Agriculture, Lucien Therrien and Rosaire Corriveau, agronomes, as well as the Mayor of St. Methode, Valere Bolduc.

Department store sales rose 12 percent over last year's level during the week ending May 1. There were large increases in Ontario of over 26 percent, and in Quebec of just over 24 percent.

The June Set-aside

It is too early to say how successful this year's June set-aside of funds for advertising dairy products will be, but we might recall to our readers that this is the fourth summer that producers have been asked to contribute one cent per pound of butter fat delivered to their creameries or processing plants, and 3½¢ per 100 pounds of milk delivered for fluid consumption, to build up this advertising fund.

Minister of Agriculture Barre points out that last year Quebec farmers contributed one-fifth of the total of $366,000 collected in Canada by the Dairy Farmers of Canada. "I urge all dairy farmers to subscribe to this cause," says Mr. Barre. "It benefits every farmer, and most of our farmers get most of their income from dairying. It is in the interest of everyone to keep milk consumption at the highest possible level."

Export markets for milk products are lacking, and the domestic market is the one that must be built up. The number of dairy cows on farms is increasing, which means that everything possible must be done to secure a larger outlet if we are not going to be faced with a surplus of milk that cannot be sold.

The June set-aside, since it is based on the amount of milk sold, is the fairest way of raising the necessary funds for advertising, since every milk producer pays according to the amount of milk he delivers for sale.

Why Sow Poor Seed?

For years the Department of Agriculture has been trying to convince farmers in Quebec that "as a man sows, so shall he reap" and pointing out that you can't get good crops without using good seed in the first place.

To prove their contention that many farmers use seed that should never be put into the ground, Departmental technicians have, for the past five years, been going around taking samples of seed out of the stocks that are being sown and analyzing them at the Quebec laboratory. Here is the result of examining 4,339 separate samples.

1,087 samples graded No. 1	**25%**
531 samples graded No. 2	**12.2%**
380 samples graded No. 3	**6.7%**
2,341 samples were rejected	**53.9%**

In other words, more than half the farmers whose seed was analyzed were sowing rejected seed, according to the grading of the Seeds Act. Small wonder, then, that grain yields in Quebec are far smaller than they could be.

But it would be relatively simple to improve this situation almost overnight if only the average farmer would take pains to do so. The Department lists five simple methods.

1. Use varieties which are adapted to the district.
2. Use only clean, weed-free seed.
3. Never sow feed grain sold as "Alberta re-cleaned" or "C.W. recleaned."

4. Prepare a good seed bed, fertilize adequately and sow early.
5. Treat seed before sowing to prevent losses through seed-borne diseases.

This survey continues this year and, according to Andre Auger of the Field Crops Division, special attention is being given to the farms in the counties of Nicolet and Yamaska, where about 20% of all the farmers in these two counties will be visited. Samples are taken direct from seeders or from seed stock set aside for sowing. Two-pound samples are taken and a report on the results of the analysis is sent to the farmer when the analysis is completed. In other surveys excellent co-operation has been secured from the farmers visited, and it is expected that the same will hold true this year.

The Department has a bulletin called "Good Seed and How To Use it." Write to Quebec for a free copy of Bulletin 174.

Find Out About New Weeds

No farmer can expect to have a farm completely free of weeds, no matter how careful he may be. And from time to time he may find some weed growing in his fields that he has never seen before. It may be an introduction that has come in, by some means or other, from another country, from a neighbouring province or from somewhere not so far away. But in most cases, when a new weed is found, it will probably be found growing also close at hand. Careful inspection of the roadside, ditch banks or nearby fields will often discover the same weed making itself very much at home from where it has spread to the field or garden that had been tended so carefully.

What to do to combat something new? That's easy. Write to the Botany Laboratory of the Weeds Division of the Department of Agriculture. Here the staff, all trained technicians with a wealth of laboratory material to consult, will soon identify the new intruder and suggest remedies to prevent its spread.

But these men are not magicians. To identify a plant they must have a sample of it — and a sample they can work with. If you break off part of a plant, slip it into an envelope and mail it, it will probably arrive in pieces that can't possibly be identified.

For identification, the botanists should have a plant that is in bloom, or that is bearing seed. It should be dug carefully, leaving some root, placed between two pieces of cardboard to protect it, and mailed with a return address on the package to the Botany Laboratory, Weeds Division, Department of Agriculture, Quebec.

Experiments have shown that Japanese millet is highly relished by cattle and that it can even be used as a nurse crop, like oats, if it is grazed at the height of approximately ten inches.

Ready For The Borer?

A serious pest of sweet corn in southern Ontario and southern Quebec, the corn borer larva is a flesh-colored worm about one inch long when fully grown and marked with rows of small brown spots. Borer damage in the field is first indicated by broken or bent tassles. Stalks may be so heavily infested, they break at various points and collapse. Holes in the stalks and fine, sawdust-like castings on leaf surfaces are other superficial clues.

For successful control of the insect, some knowledge of its life history is required. Knowing something of its egg-laying habits is particularly important since insecticide application is timed with the period eggs hatch. Winter is spent in the borer stage in corn stalks, stubble or field weeds. In late May or early June the borer changes into the pupal stage from which a moth emerges several weeks later. In the Maritimes the cycle occurs three to four weeks later.

Eggs are laid in clusters of up to 25 at about the end of June. They are the size of a pin head, pearly-white in color and disc-like in shape. Laid on the underside of a corn leaf, they resemble a mass of minute fish scales. When eggs hatch, the small borers feed on the leaf for a few days before boring into the stalk. They must be destroyed during this period.

Timing of the first application is important. The eggs hatch over a period of three to four weeks, so more than one application is necessary. Four applications at five-day intervals are recommended.

DDT, rotenone or ryania, in dust or spray form, will control the corn borer successfully if used according to recommendations and precautions on the manufacturers' labels.

Oats can be used in many ways, here they've been sown in the killed out sections of this field.

THE WOMEN'S INSTITUTES SECTION

Devoted to the activities of the Quebec Institutes and to matters of interest to them

Artist - Homemaker

by F. Elizabeth Campbell

HOMEMAKERS can be artists in the very real sense. Decorating, clothes, meals, all of these are to the housewife as a blank canvas is to a painter. They are opportunities through which the housewife can express her personality and at the same time provide a pleasing creation or background for the members of her family. The homemaker who applies in her own home technical ability and knowledge of materials with her appreciation of colour, texture and design, is as creative as the artist who wields a brush, or the poet a pen.

Perhaps nowhere is the housewife more an artist than in her kitchen — it is her studio — the dishes she prepares, her artistic creations. But whether she is a successful artist or not depends on how wisely and well she uses all the devices and materials at her disposal. True, the proof of the pudding is in the eating, but the pudding is apt never to be eaten unless it is well served and has eye appeal. The factors of color combination, form and texture are equally important to the painter and to the housewife. They apply to all foods which the housewife prepares. Painters are not limited to beautiful scenes for inspiration, nor is the kitchen artistry limited to fancy cakes, cookies and salads — all dishes however simple can become works of art with only a little ingenuity, effort and experimentation.

Interior decorating is a family affair, but more often than not the final choices are left to the housewife. Good decoration is not a matter of chance, but requires knowledge of texture, colors and design.

For those who are especially interested in this aspect of homemaking there are wonderfully exciting opportunities for experimentation. There are no rigid rules in the use of color, design and form — if there were, styles would be repetitious and monotonous. Mind you, there are facts about these three elements of fashion which are guide-posts to good design but they are not restricting — they are features which the decorator uses to set the atmosphere and within this very fluid framework the possibilities are many.

Books and magazines are full of suggestions for color and furnishings. Stores are filled with exciting new styles in furniture and upholstery materials. Modern wallpapers have a wide range of color and design and the range of color in wall paints is the color spectrum itself. With all these materials at her disposal the decorator can give full expression to her imagination.

The facts about colors, textures and designs are many. Those who paint make use of this knowledge. They know, for instance, that subdued colors give an impression of airiness, heavy colors are confining and vivid bold colors are exciting to the eye, especially when complimentary colors are set side by side. Warm colors and rough textures add warmth to a room, smooth materials — coolness and formality. These are only a few of the facts which the decorator considers in creating the atmosphere.

However they are tied together; to get a good design, the individual items — walls, furniture and materials — must all be thought of as a whole. Before the artist paints a picture he has in his mind a very definite idea of what he wants to say in his painting. This vision is equally important in decorating, otherwise the room will be disjointed and discordant.

The use to be made of each room is an important factor in the choice of color, texture and design, just as the impression which the artist has to impart determines his range of color and use of materials. A hint I read recently was that colors arranged in a room should be placed so that if all the colors but one were removed from the room, that color by itself would make a pleasing design.

The art of painting and the art of decorating meet face to face in the final touch of decorating — the hanging of pictures in a room. Canadians are notorious for their indifference to art and often paintings are considered luxuries or not even thought of in the general planning.

The delegates who attended the 1954 Leadership Training Course.

Photographs, calendars, and copies can never take the place of an original painting — they are but shadows of creation, and families exposed to shadows will never know the full joy of appreciation. Here the homemaker can express her creativeness in her appreciation of other works of art. Paintings for the home should be considered from the standpoint of how they will look in a certain setting, they should never overshadow or be overshadowed by their surroundings but complement the overall effect.

Families must be clothed and again the homemaker takes over the responsibility, and combines her technical ability, if she sews, with her artistic flair. All the features of color, design and texture are involved. And with all the new materials which are on the markets this field of creation is a very exciting one. The figure, coloring and personal taste to a large extent influence individual wardrobes, but the wise homemaker knows that overall planning is as important in a wardrobe as it is in preparing meals and decorating, if the result is to be tasteful as well as useful.

Those who find a pleasure in painting would tell you that the real joy lies in the complete freedom of expression which painting affords. Creativity is not possible without freedom but creativity is not the sole property of the artist, the poet, the musician or the sculptor; it is in each one of us, waiting to be developed and used in our everyday lives. It cannot be restricted to one or two activities — it must express itself in all phases of living. Nowhere is it more necessary than in the home, and the key figure here is the artist-homemaker.

Bargain Day At The Q.W.I.

"Where else could we get so much for so little!" This comment, made at the closing evaluation session, was but one of many others equally expressive of the success of the recent annual Leadership Training Course sponsored by the Quebec Women's Institutes at Macdonald College The friendliness and goodwill, the pleasure of meeting members of other branches, the opportunity to discuss

A new course, "Music In Your Programme" proved to be one of the most popular.

common problems and find ways of coping with many of them, and the acquiring of new skills, were some of the other remarks heard at this "stock-taking" period.

When asked, "Which courses would you like to see continued next year?" the reply was an emphatic, "All"! The next question, "Were the courses relevant to the needs of your groups back home?" brought another unanimous reply, "Yes"!

High on the list in popularity came the subject offered for the first time, "Music in Your Programs", conducted by Mrs. D. L. MacFarlane. The amazing result of four short afternoon's work was heard at the party the last night of the Course. The Recreation group, Miss Campbell leader, also demonstrated their newly-acquired skill at this same event. The model program, which will be used by the branches as the pattern for next year, was one of the undertakings of the group in Program Planning, Miss Ridley instructor, and examples of the basketry class will be seen at the Exhibit at the Convention. Miss June McRae was in charge of this class and Miss Hasel took

The popular advanced weaving course was offered again, and a new one, in basketry, was on the programme for the first time.

The gardening group tried to find the blossoms on the tulip tree — but it was too early and the flowers weren't out yet.

the class in advanced weaving. Gardening, with Miss P. Harney, completed a well-rounded program of day-time activities.

The evening sessions followed the pattern of previous years. Topics under the general heading, "Running the Organization", were discussed at the three periods allotted to this portion of the Course.

A "free-for-all" featured the first evening. Under the direction of Miss Ridley, members formed into small groups to list difficulties encountered in operating their own branches. These were itemized on the blackboard as they were tossed on to the floor when back in the larger group. Miss Ridley then asked each section to choose what it felt were the most important problems, to go back in the smaller formation and try to discover for itself the solutions. An interesting and worthwhile experiment.

The value of group discussion in studying the topics appearing on the monthly program was ably demonstrated by Mr. K. Russell at the session the following evening and Mrs. G. D. Harvey led the group on the last evening when the proper procedure for the business portion of these meetings was discussed. The party referred to previously, wound up the final night.

"Why did this course run so smoothly?" asked Miss Ridley in her summing up Friday morning, when the members sat down together to evaluate the entire Course. She felt this had been an example of true democracy — a good form of living together — not for the glory of the individual but that each one could have the chance to grow in knowledge and to share the good things with one another. "Democracy is a never-ending process", she concluded, "a giving and receiving — a sharing".

The Month With The W.I.

Spring and gardening go together. This is equally true whether we live on the farm or in a town. May programs always reflect this so once again reports were filled with this oft repeated phrase, "exchange of plants, bulbs, roots and slips". Some branches sold these commodities, an aid to the treasury. A busy month for the convenors of Agriculture, as the reports will show.

Bonaventure: *Black Cape* welcomed its 39th member. Mr. Joseph Alain, agronomist, gave a talk on Gardening and answered numerous questions. A contest on trees was won by Mrs. Colin Campbell. *Grand Cascapédia* enrolled three new members, and presented a life membership to Mrs. E. M. Walsh, past president, an Institute member for 23 years. Ways of using skim milk were discussed and pamphlets on the use of milk and cheese distributed. A "Campbell Soup" film was shown. *New Richmond* had a discussion on reforestation, also on the use of W.I. funds. Convenors read short articles on the work of each department. *Restigouche* is planting trees in a beautification project.

Brome: *Abercorn* heard a talk, "Civilization was a Slow Process" by Mrs. G. F. W. Kuhring. Remnant donations were received from Eaton's, Simpson-Sears, Celanese, and $3 certificate from Morgan's. A charter member, Mrs. Jennie Foley, was honored with a life membership. *Austin* received a tartan bow from a Scottish W.I. *South Bolton* realized $42 from a rummage sale and parcels or remnants were received from Eaton's and Simpson-Sears. *South Bolton JWI* have raised $6. Their counsellor, Mrs. R. C. Davis attended the Leadership Training Course. *Sutton* voted $5 for hot lunches at school.

Chat-Huntington: *Dundee* sent another parcel of used cotton to the Cancer Society. The travelling apron brought in $8.38. A letter was read from Miss J. Maines of Western Australia, who visited there last summer, (ACWW delegate). *Franklin* had a talk on Rheumatic Fever by Dr. John Taylor, Ormstown, and a demonstration by Mrs. Roy Blair. *Hemmingford* collected used clothing for the Salvation Army, and voted $10 to the Cancer Fund. A white elephant sale brought $10.40. A fine collection of articles is being planned to send to the Q.W.I. exhibit at the convention. Dishes have been given to the local high school kitchen. This branch entertained the county meeting. *Howick* voted $10 as prizes for the Fashion Show at Howick High School, also $10 to the Cancer Fund. A talk on Banking was given by Mr. Stewart Roy. *Huntingdon* heard a talk on the CAC by Mrs. Reid. A birthday card shower and gift was sent to a patient in a local nursing home. *Ormstown* heard a talk on "Life Boats" by Miss Martin, and a humorous reading, "Grandma and Her New Glasses", was given by Miss K. Murphy.

Gatineau: *Aylmer East* heard talks on Nylon and Orlon, also Reforestation and a contest on button hole making was won by Mrs. Crobar. A donation of $30

Gatineau County holds its annual meeting at Rupert. Mrs. G. D. Harvey visited here.

was given the Brookdale Home for Children. *Breckenridge* had a series of talks given by the respective convenors. A discussion was held on putting on a scene from a Shakesperian play and a contest on "Know Your Animals" was held. Again a donation for the Children's Home, $25 here. *Wakefield* heard an explanation of an Education Loan set up by the Home and School Association, and a film, "Life Among the Eskimos was shown. Under W.I. supervision $657.50 was collected for the Red Cross. *Wright* heard a paper on Nature's Culture and a contest on trees was featured. A box of books was sent to the Gatineau Memorial Hospital. *Eardley* featured a program on Education with a paper given by the convenor on "What Your Child Learns at School". A panel discussion followed on spending more time in drilling and teaching in Grades I-VI rather than having so many tests. Another paper heard was "The Importance of Musical Education", prepared by Mrs. Dowd. *Kazabazua* discussed some of the trees used for reforestation, and suggestions were given on the care of bulbs and control of weeds. Articles are being prepared for coming fairs.

Mrs. Harvey's next stop — the Lochaber W.I. She can be seen here, third from left.

Mégantic: *Inverness* has distributed seeds to the children for the School Fair. Several bags of clothing will be packed for Korea.

Missisquoi: *Cowansville* had a talk on Dying Fabrics, by Mr. Chevrier. *Dunham* had a demonstration on braided rugs and a talk by the convenor of Agriculture. A gift was presented to Mrs. C. Farnam on the occasion of her 25th wedding anniversary. The *Fordyce* program featured Ceylon. Hand made lace from Ceylon was on display, a letter from Mrs. De Mel, president of Mahila Samati (W.I.) was read and Mrs. G. Hooper gave a talk on that country. This branch is continuing its adoption of an Austrian girl.

Montcalm: *Rawdon* heard a talk on "The Aims and Work of the W.I." by Mrs. G. Parsons, Q.W.I. Treasurer. A life membership was presented to Mrs. E. Knox Copping, in recognition of her splendid work for the W.I. over a period of 19 years.

Papineau: *Lochaber* had as honored guests, Mrs.G. D. Harvey, Q.W.I. 1st Vice-president and Miss N. Hasel, Handicraft Technician. A button hole contest conducted

The youngest member of the Lochaber W.I. and her mother, Mrs. L. H. Berndt, who is secretary for the branch.

by the Home Economic's convenor was won by Mrs. Harvey. A donation was made to Save the Children, and $10 given to a bereaved family.

Pontiac: *Bristol* made plans to seed and plant flowers in the village square. The convenor of Agriculture, Mrs. James Russell, gave a reading and the weed contest was won by Mrs. Earl Findlay. At *Clarendon* the Home Economics Convenor, Mrs. Vincent Hodgins, gave a reading. The contest, jumbled letters, was won by a visitor, Mrs. A. Corrigan of Knowlton. A donation of yarn has been received. *Elmside* had a discussion on legislation re the dower rights and property ownership of women in Quebec. *Fort Coulonge* has just completed a successful course in leather work. *Quyon* made arrangements for wood working classes for boys 9-11 and 12-14 years of age, the articles to be entered in the special prize class sponsored by this branch. A class in sewing for girls is also planned. Mr. Ira Merrifield, Upper Eardley, was

guest speaker, his subject "Care of Winter and Spring Planted Bulbs". *Shawville* heard selections on the electric organ, Mrs. C. E. Hodgins, organist. A paper on culture of sweet peas was read by the convenor of Agriculture. A donation of $15 was voted for Korean children and $25 to the Orphanage at Farm Point. *Wyman* had as guest speaker, Mr. A. C. Shennett, manager of the Bank of Montreal, Quyon, on the topic, "Budgetting and Planning of Income".

Richmond: *Denison's Mills* had a demonstration on fancy sandwiches by Mrs. Ira Patrick, Home Economics convenor, who also won the prize in the holder contest. Mrs. A. Paige, county president, was the guest speaker. *Gore* held a bring and buy sale. Pamphlets were distributed and a gift sent to lady in the hospital. *Melbourne Ridge* sold a blanket donated by a textile firm for W.I. funds, also a birthday parcel. A flower contest was held and seeds given to school children. *Richmond Hill* held a contest and sent donations to Save the Children, March of Dimes and Q.W.I. Service Fund. *Richmond YWI* held a sale of Q.W.I. cookbooks. *Spooner Pond* had a contest and enrolled a new member. Linen was brought in for the Cancer Society. Talent money is the fund-raising project here and an article is to be made by each member for the fall bazaar. *Windsor Mills* reports only the current sale, bulbs, etc.

Shefford: *Granby Hill* had a paper on Forest Care. A Mother's Day poem was read by Mrs. Shanks and a birthday box sent to a friend in Montreal. *Granby West* had an exhibition of handwork, each member bringing in a piece, a prize given for the best. Used cotton was sent the Cancer Society. *South Roxton* heard a paper on the Women's Institute in Ceylon. A food sale netted $8.05 and $3 was voted to the Cerebral Palsy Drive. *Warden* had a discussion on ways of using powdered milk, held a candy sale and circulated a travelling apron, the member guessing nearest the amount won the apron.

A busy group at Fort Coulonge. Leather-work was the craft here.

Leather work again, Quyon this time.

Stanstead: *Beebe* observed one minute of silence in honor of a late charter member. The guest speaker was Mrs. Butterfield, Home Demonstration Agent of Orleans County, Vermont. A sale of flowers for Mother's Day is an annual affair. The money raised is sent to local hospitals and to help those who are ill. ($54 this year). Two prizes were awarded winners in a supper menu contest and $10 was voted toward school prizes. *Hatley* heard an article on the Culture of the African Violet. The list of trees available for reforestation was discussed. *Minton* heard the report of the annual county meeting and *North Hatley* received letters and books from the English W.I. at Warham. A demonstration on making slip covers was held. *Stanstead North* held a card party and voted $50 to the Home and School Association. *Tomifobia* entertained the county annual meeting. A pink and blue shower was given a new baby. *Way's Mills* sent the Macdonald Farm Journal, also the Family Herald & Weekly Star to the English link, the Cross-in Hand W.I. and letters from friends in Scotland and England were read. A discussion was held on the need of uniformity of sizes of garments and four yards of home weaving for skirt length was on display. A member of this branch, Mrs. G. Cass, has been appointed president of the Ayer's Cliff Home and School Association.

Vaudreuil: *Cavagnal* displayed a quilt made by a group of members and *Harwood* showed the film, "Let There be Light".

THE COLLEGE PAGE

The Macdonald Clan

Notes and News of Staff Members and Former Students

We Knew The Man

". . . no great deed is done
By falterers who ask for certainty.
No good is certain, but the steadfast mind,
The undivided will to seek the good:
'Tis that compels the elements, and wrings
A human music from the indifferent air."

Much has been said and written about Dean Laird since his death on May 9th. His career as a teacher and administrator has been recalled in classrooms, from the pulpit, and in the press. His contributions to education have been chronicled and his work in the community has been stressed; his many degrees and academic honours have been enumerated.

But those of us who have lived so near to him for so many years — his neighbours, his colleagues, and his personal friends — those of us who loved him, have been singularly privileged, for we have heard that "human music" that was especially his. We have heard it when he showed us his latest oil painting, or when we heard him play. We have heard it also when he discussed underprivileged children, or pensioners, or community problems.

As for the "steadfast mind and undivided will to seek the good" — that was the golden thread on which all his efforts were strung. In his role as husband, father, teacher, or administrator, his mind was steadfastly set to seek the good

He used to say, "Only your best is good enough . . . Develop your powers of concentration . . . Learn all you can . . . Enlarge your concepts . . ." To faltering or careless students who mumbled, "I — I forget," he used to say, "You didn't forget — you never really knew!"

And now that he has gone we are thankful that so many of us can say, "We shall never forget you, Dean Laird — because we really knew you."

(Contributed)

Bees Can Pollinate Legumes

When honeybee colonies are to be used primarily for pollination, consideration should be given to the type of colony best suited to perform this service. For a crop such as alsike clover or sweet clover the colonies should be as strong as possible. These legumes normally produce nectar abundantly and hence the bloom is visited freely by the bee. Since nectar collectors as well as pollen collectors are active in cross-pollination, the stronger the colony the more work will be performed each day.

For the pollination of red clover, on the other hand, the colonies should not be at their maximum strength when they are moved to the crop, says Dr. C. A. Jamieson, Chief, Agriculture Division, Central Experimental Farm, Ottawa. Since nectar is not often available from second bloom red clover, the pollen collectors of the hive perform the important role of pollination. If brood production is on a decline the need for pollen will be lessened considerably and consequently fewer bees will be collecting pollen and transferring it from flower to flower. Colonies of medium strength would also be preferred when used for pollinating alfalfa and ladino clover. In the former legume, the honeybee collects the nectar without coming in contact with the pollen and hence the pollen collectors are more important.

Ladino clover is not a reliable honey plant and, therefore, much of the cross-pollination will be done by the pollen-collecting bees.

A medium strength colony ready to be moved to fields of the crops mentioned above should have, approximately, a total of 1,500 square inches. This quantity of brood could be contained in ten to twelve combs. In addition, to the above, each colony should have a food reserve of from twenty to twenty-five pounds of honey.

If honey production is of primary importance and pollination of secondary consideration then of course the above recommendation would not apply.

MILLET

For some years, a number of farmers have adopted the excellent practice of seeding a small field to annual plants to be used as an emergency pasture crop, if the need arises during the summer. In the past, a mixture of oats, peas and vetch was recommended which was cut green and fed to the cattle. Since such a practice calls for a considerable amount of work, it is suggested by the Lennoxville Experimental Station that oats be used alone and that they be grazed when they reach about ten inches in height. This practice is even necessary when reseeding a pasture, so as to ensure a good catch of certain legumes such as Ladino clover and bird's-foot trefoil.

There is an advantage in certain cases in substituting Japanese millet for oats, since the millet gives a much higher yield, especially during the month of August when a lack of grass is more often noted on the farm. At the Lennoxville Experimental Station for example, the yield per acre of the Japanese millet during the summer of 1951 and 1952 was almost double that of oats, namely 27,358 pounds of green grass compared to 14,861 pounds for oats. The yields in dry matter for these two annual plants were respectively 4,203 pounds and 2,590 pounds per acre.

Poultry News

In 1932, it required 20 weeks and 23 lbs. of feed to produce a 5 lb. fryer whereas today 5 lb. fryers are being produced at 13 weeks of age and require only 16.5 lbs. of feed.

It is an understatement to indicate that producing 5 lb. fryers in 35 per cent less time and on 28 per cent less feed represents considerable progress in 20 years.

This remarkable improvement in growth rate can be attributed mainly to research done in two major fields — nutrition and genetics. Mr. Jeffrey is inclined to feel that nutrition workers have made the biggest contribution but the private poultry breeders have also made substantial progress and maximum growth today is realized only when good stock is fed good feed.

Good management and control of disease are just as important today as they were in 1932 but it is doubtful if birds get better care today than they did in 1932. Certainly the grower today has more diseases to contend with than he did in 1932 and it must be pointed out that our modern poultry meat industry would not be possible without the contributions made by poultry pathologists.

One of the most striking advances in poultry technology during recent years says P. F. Jeffrey in "Feathered Fox", has been the increase in rate of growth of chickens. This point is well illustrated when comparing growth rates as observed in 1932 with those of 1953. The following table is based on data published in Cornell Bulletin 240 (1932) and New Hampshire Bulletin 401 (1953). Growth and feed conversion figures in the 1932 data were based on Ameriacn breed cockerels whereas those of 1953 were taken on New Hampshire cockerels.

Age in Weeks	Live body weight in		Feed conversion in	
	1932	1953	1932	1953
2	.19	.38	1.5	1.3
4	.46	.97	2.1	1.8
6	.96	1.62	2.4	2.2
8	1.55	2.58	2.7	2.4
10	2.09	3.64	3.1	2.6
12	2.80	4.49	3.3	2.9
14	3.57	5.63	3.4	3.2
16	4.02	6.64	3.9	3.7
18	4.63	7.26	4.2	4.1
20	5.01	7.44	4.5	4.7

THE MACDONALD LASSIE